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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/814,136

04/01/2004

Tsuyoshi Kaneko

119105

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04/20/2006

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EXAMINER

RUDE, TIMOTHY L

ART UNIT

PAPER NUMBER

2883

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

10/814,136

Applicant(s)

KANEKO, TSUYOSHI

Examiner

Timothy L. Rude

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2006.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
 4a) Of the above claim(s) 4-6, 14-16 and 19-26 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-3, 7, 12, 13, 17 and 18 is/are rejected.
 7) ☒ Claim(s) 8-11 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 20040401, 20040810.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of invention II and species A in the reply filed on 07 February 2006 is acknowledged. The traversal is on the ground(s) that all claims are so related that one search will cover all claims. This is not found persuasive because in particular, methods of making are covered by a different art unit and they are covered in different classes, let alone subclasses. Furthermore, finding prior art for one species would not serve to confirm or deny patentability of any other species, so search is substantially compounded by each additional species.

The requirement is still deemed proper and is therefore made FINAL.

Claims 4-6, 14-16, and 19-26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention or species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 07 February 2006.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7, 12, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Hanneman USPAT 6,532,317 B2.

As to claim 1, Henneman discloses a connection structure between optical fibers, comprising: a substrate a plurality of optical fibers, 30 and 29, each having end surfaces; a base member [portion below 32] provided over the substrate [col. 2, lines 10-55]; and a connecting part, 32, provided on a top surface of the base member and joined to each end surface of the plurality of optical fibers [col. 12, lines 3-68].

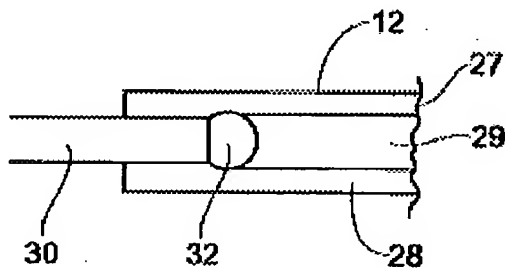


Fig. 4

As to claim 2, Hanneman discloses the connection structure between optical fibers according to claim 1 wherein the plurality of optical fibers are provided over the substrate.

As to claim 3, Hanneman discloses the connection structure between optical fibers according to claim 1, the top surface of the base member being a flat surface [col. 2, lines 10-55].

As to claim 7, Hanneman discloses the connection structure between optical fibers according to claim 1, the base member being formed monolithically with the substrate [same substrate, please note Applicant defines base member in the specification at [0012] "Here, "base member" refers to a member having a top surface where the connecting part can be provided, and "top surface of a base member" refers to a surface where the connecting part is provided. The top surface of the base member may be a flat surface or may be a curved surface as long as the connecting part can be provided thereon."] Examiner considers the base member may simply be that portion of the flat substrate that happens to be directly below the connecting part.

As to claim 12, Hanneman discloses the connection structure between optical fibers according to claim 1 above wherein, a refractive index of the connecting part being larger than a refractive index of the clad of the plurality of optical fibers [clad is lower, col. 12, lines 1-20].

As to claim 17, Hanneman discloses the connection structure between optical fibers according to claim 1 above wherein the connecting part being formed by

Art Unit: 2883

hardening a liquid material that is hardened by applying energy [Abstract and col. 12, lines 1-60].

As to claim 18, Hanneman discloses the connection structure between optical fibers according to claim 17 above wherein the connecting part being formed of ultraviolet curing resin [col. 12, lines 40-50].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanneman.

As to claim 13, Hanneman discloses the connection structure between optical fibers according to claim 1 above.

Hanneman does not explicitly disclose a connection structure with the refractive index of the connecting part being almost equal to a refractive index of the core of the plurality of optical fibers.

Hanneman teaches the need to control the index of refraction differences between the optical components [core, cladding, etc] in order to produce a satisfactory connection structure with good optical performance [col. 12, lines 1-68 and elsewhere].

Hanneman is evidence that workers of ordinary skill in the art would find the reason, suggestion, or motivation to add a connection structure with the refractive index of the connecting part being almost equal to a refractive index of the core of the plurality of optical fibers to control the index of refraction differences between the optical components in order to produce a satisfactory connection structure with good optical performance. Index of refraction matching in an optical path has been well known in the art for a very long time prior to the claimed invention.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Hanneman with a connection structure with the refractive index of the connecting part being almost equal to a refractive index of the core of the plurality of optical fibers of Hanneman to control the index of refraction differences between the optical components in order to produce a satisfactory connection structure with good optical performance.

Allowable Subject Matter

Claims 8-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

As to claim 8, relevant prior art of record did not disclose, alone or in combination, the connection structure between optical fibers as claimed comprising only an end surface of a core being joined to the connecting part in at least one of the plurality of optical fibers.

The closest prior art is Hanneman who discloses the connection structure above. However, no prior art was found with proper motivation to combine to comprise the claimed connection structure further comprising only an end surface of a core being joined to the connecting part in at least one of the plurality of optical fibers.

As to claims 9-11, they are directly dependent upon claim 8 with allowable subject matter above.

References cited but not applied are relevant to the instant Application.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L. Rude whose telephone number is (571) 272-2301. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



tlr

Timothy L Rude
Examiner
Art Unit 2883



Frank G. Font
Supervisory Patent Examiner
Technology Center 2800